Please replace the paragraph at page 5, beginning at line 28, with the following paragraph:

22

--The present invention is also directed to a connective tissue cell line comprising a recombinant viral or plasmid vector comprising a DNA sequence encoding a member of the transforming growth factor superfamily. The connective tissue cell line may include, but is not limited to, a fibroblast cell line, a mesenchymal cell line, a chondrocyte cell line, an osteoblast cell line, or an osteocyte cell line. The fibroblast cell line may be a human foreskin fibroblast cell line or NIH 3T3 cell line.--

Please replace the paragraph at page 9, beginning at line 4, with the following paragraph:

--As used herein, the term "connective tissue cell" or "cell of a connective tissue" include cells that are found in the connective tissue, such as fibroblasts, cartilage cells (chondrocytes), and bone cells (osteoblasts/ osteocytes), which secrete collagenous extracellular matrix, as well as fat cells (adipocytes) and smooth muscle cells. Preferably, the connective tissue cells are fibroblasts, cartilage cells, and bone cells. More preferably, the connective tissue cells are fibroblast cells. Connective tissue cells also include mesenchymal cells, which are also known as immature fibroblasts. It will be recognized that the invention can be practiced with a mixed culture of connective tissue cells, as well as cells of a single type. It is also recognized that the tissue cells may be treated such as by chemical or radiation so that the cells stably express the gene of interest, preferably TGF-β. Preferably, the connective tissue cell does not cause a negative immune response when injected into the host organism. It is understood that allogeneic cells may be used in this regard, as well as autologous cells for cell-mediated gene therapy or somatic cell therapy.--



## In the Claims:

14:

Please cancel claims 6-12, and 16-22 without prejudice or disclaimer of the subject matter thereof.

Please replace claims 1-5 and 13-14 with the following amended claims 1-5 and 13-

- 1. (Amended) A method of treating osteoarthritis comprising:
- a) generating a recombinant viral or plasmid vector comprising a DNA sequence encoding transforming growth factor  $\beta 1$  or BMP operatively linked to a promoter;
- b) transfecting *in vitro* a population of chondrocyte cells with said recombinant vector, resulting in a population of transfected/transduced chondrocyte cells; and
- c) transplanting said transfected/transduced chondrocyte cells by intraarticular injection to an osteoarthritic joint space of a mammalian host, such that expression of said DNA sequence within said joint space results in regenerating connective tissue.
- 2. (Amended) The method of claim 13, wherein said recombinant viral vector is a retroviral vector.
- 3. (Amended) The method of claim 13, wherein said recombinant vector is a plasmid vector.
- 4. (Amended) The method of claim 13, wherein said population of transfected/transduced chondrocyte cells are stored prior to transplantation.
- 5. (Amended) The method of claim 4, wherein said population of transfected/transduced chondrocyte cells are stored in 10% DMSO under liquid nitrogen prior to transplantation.
  - 13. (Amended) A method of regenerating hyaline cartilage, comprising:
- a) generating a recombinant viral or plasmid vector comprising a DNA sequence encoding transforming growth factor  $\beta 1$  (TGF- $\beta 1$ ) or BMP operatively linked to a promoter;

